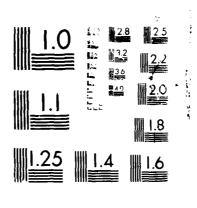
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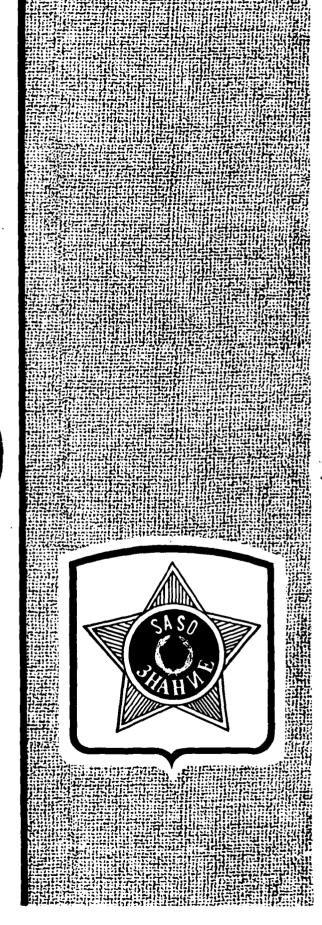
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AND THE INITIAL PERIOD OF WAR;

MILITARY HISTORY AND AIRLAND BATTLE

By

DR. JACOB W. KIPP
Soviet Army Studies Office
U.S. Army Combined Arms Center
Fort Leavenworth, Kansas

The views expressed here are those of the Soviet Army Studies Office. They should not necessarily be construed as validated threat doctrine.

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Barbarossa, Soviet Covering Forces and the Initial Period of War: Military History and Airland Battle

by Dr. J. W. Kipp

The issues surrounding the German attack upon the Soviet Union in June 1941 continue to attract the attention of historians and military analysts. The nature of the Soviet response to that attack has, as recent articles in Air University Review suggest, set off heated polemics. The appearance of Bryan Fugate's Operation Barbarossa with its assertion that the Soviet High Command did, indeed, have a "realistic plan or operative concept for coping with the situation" marked a major departure from conventional Western scholarly interpretation of the events leading up to the invasion. The response by Williamson Murray and Barry G. Watts that Fugate was "inventing history" to find an unsuspected Soviet military genius where there was none confirms the controversial nature of the issue. These authors underscore the impact of surprise and tend to treat it as systemic and general. The Soviet Union, they argue, did not expect the blow and was unprepared for it. Soviet military doctrine and field regulations spoke of the offensive, while neglecting the defense. In assessing Soviet perception of the German threat, the authors are at odds not only with Fugate. Earl Ziemke has recently pointed to the December Conference sponsored by the Main Military Council and the January 1941 war games, which led to Zhukov's appointment as Chief of the General Staff, as explicitly directed to the problem of assessing the German threat in light of the lightning victories in Poland and the West. Distribution/

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Soviet military historians are as one in their emphasis upon the Red Army's contribution to the development of its concepts of mechanized warfare under the ruberic of "successive, deep operations." Based upon their own experiences during the Civil War and Foreign Intervention, studies of the major operations of World War I, and a critical reading of foreign military theory, a group of young Red Commanders, including M. N. Tukhachevsky and V. K. Triandafillov, addressed the problem of designing an attack which would achieve breakthrough and allow exploitation using an echeloned commitment of forces to penetrate to the depth of an enemy's defense. Triandafillov in particular pointed the way towards the use of mechanized forces and aviation in this process and sought to define the dimensions of a modern operation in terms of frontage, depth, and time of execution, while setting norms and densities for each phase of an operation. The Soviet theorists refused to accept the idea of quick decision and advocated the "total militarization" of state and society for the conduct of systemic war in which military victory would lead to socialist revolutions in the rears of the capitalist armies. The theory of deep operations explicitly acknowledged the problem of friction and accepted the necessity of operational pauses. 8 Soviet deep operations theory as presented in PU-36, emphasized a troika of surprise, deception, and secrecy to create the operational preconditions for success. PU-36 called for a succession of combined arms blows, led by mechanized formations and supported by tactical aviation and airborne troops to break through the enemy's defenses through their entire depth and create conditions for exploitation and destruction of the enemy by means of maneuver and shock. Meeting engagements

in which the second echelon would encounter and destroy the enemy's reserves as they moved up to join the battle were to lead to encirclements, or Schlieffen's planned Cannae. Although many of the initiators of deep operations theory were dead by the late 1930's, most as a consequence of the Purges, the basic ideas were kept alive and developed by officers such as G. S. Isserson. 11

Soviet military doctrine emphasized the offensive as the decisive form of combat. Stalin's industrialization radically reduced the Soviet Union's economic backwardness, replaced what Triandafillov had called a "peasant rear" with and industrial base and made it possible for the Red Army to mechanize.

PU-36 addressed defense but noted that defense could not be decisive. The objective of the defense was to take the initiative from the opponent and create the preconditions for a counteroffensive on the main axis. PU-36 recognized both an uninterrupted defense and a mobile defense and discussed their application. The same regulations also addressed anti-tank, anti-chemical, and anti-air defense as specific problems. Crucial to the entire Soviet discussion of defense in PU-36 was an emphasis on the need for an active defense as the only appropriate means of robbing an adversary of the initiative and creating the preconditions for successful counteroffensives. Active defense implied the use of frequent counter blows. 13

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Central to the Soviet concept of defense was the ability to defend against a superior force, using massed mechanized forces and tactical aviation. To deal with such a threat PU-36 envisioned a four-stage defensive plan. First,

use fire and engineering assets to stop or delay enemy infantry in the forward area before the main position and assign anti-tank assets to prevent the penetration of armor. Second, if armor did break through, then use anti-tank assets to attack the tanks while relying upon rifle and machine gun fire to tie down the accompanying infantry, stripping away the armor's support. Third, use artillery fire and armored counterattacks against the enemy which had broken through in depth. Fourth, in case the enemy did manage to launch a combined arms force of tanks and infantry into a deep attack—one which penetrated the main tactical zone of defense—then the defender was to use fire to stop the advance and attempt an armored counterattack. 14

The Field Regulations of 1936 envisioned a defensive position for a rifle corps, consisting of four zones. The first, or forward area, was to include belts of engineering-chemical obstacles forward of the main defensive line and defended by forward detachments composed of small infantry and artillery units. This forward area, depending upon terrain, could reach a depth of 12 kilometers. Second, a security line directly covering the main defensive position was composed of independent strong points and held by reenforced rifle regiments, which, in turn were organized into battalion areas. The security line was to be located 1-3 kilometers from the forward area of defense. Third, there was the main defensive position, which was to include the shock groups for each of the divisions in the corps. Fourth, there was a rear defensive belt located 12-15 kilometers behind the main defensive position. 15

The basic unit of defense envisioned by PU-36 was the rifle division. which was expected to occupy a position covering a front of 8-12 kilometers with a depth of 4-6 kilometers. In the face of enemy armor penetration, it was the division commander who organized the counterblow with his "mobile anti-tank reserve and tanks" to contain the thrust and then counterattack with his shock group to restore the line. 16 If the enemy did smash the main line of defense, the divisional commander could, with the authorization of the corps commander, decide not to launch the counter-attack and fall back. In such a circumstance the corps commander's responsibility was to use his limited reserves, reenforcements from army, and, by redeploying units from his corps' defensive positions, to mount the counterattack. His mission was explicit: "The enemy which has broken through must be smashed and a defensive line reestablished." If the enemy force which had broken through included large mechanized formations, the corps commander was instructed to make every effort to close the breach in the line and cut the advancing mechanized forces off from support by their second echelon. The destruction of enemy mechanized forces in the corps rear area was the responsibility of army reserves and aviation. In short, the Soviet field regulations had, by the mid-1930's, developed a defense against the thrust of mechanized forces, but the Soviets' response was essentially a negation of their own ideas on deep operations, focusing on the division as the keystone of the defense. Soviet wargames in the mid-1930's did, indeed, test these concepts of offense and defense, but the Purges and the accompanying turmoil within the Red Army's cadre arrested the process of theoretical development and practical application. 18

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Between the publication of PU-36 and Operation Barbarossa, the Red Army had numerous opportunities to observe the nature of modern combat and to test the application of its own military art and doctrine in practice. Many wrong lessons regarding mechanized formations were drawn from Spanish Civil War, where a host of Soviet commanders served as "volunteers." On the basis of that experience and problems during the Soviet advance into Eastern Poland in September 1939, the Politburo took the decision to abolish the mechanized corps, which had evolved since 1932, to make the tank division the largest armor formation available to commanders of the combined-arms armies, and to assign motorized rifle divisions the task of exploitation in breakthroughs. 19

In light of Spain, the Soviet leadership acknowledged the need for a substantial modernization of Soviet tank and air forces. During the Third Five Year Plan (1937-1942) the Soviet Union embarked upon a major rearmament cycle, which aimed at replacin; the now obsolescent equipment, which the RKKA had procured during the first two five year plans. This process placed the Red Army of 1941 in the midst of a rearmament cycle. The Army possessed masses of old but inferior equipment for which it was nearly impossible to get spare parts and maintain, but did not have adequate numbers of the new weapons to equip or train its formations. At the same time the Soviet Armed Forces increased from 1.9 million to over 5 million men. Of course, expansion and rearmament held long term advantages, but in 1941 these processes also placed strains on the military system. The same was true of another "advantage," the Soviet incorporation of the new territories along the Western borderlands.

While these gains pushed the threat further from the Soviet heartland, they required a total repositioning of the covering forces in the Western military districts and the development of an entire support infrastructure along the new state frontiers to cover for the concentration and mobilization of strategic reserves deep within the USSR. The absence of any fortified regions on the likely avenues of enemy advance, the totally inadequate network of supply, repair, and support facilities for both ground and air forces, and the underdeveloped nature of the railroad and highway system created nightmares for the General Staff. Many senior staff officers were aware that the German transportation network in Poland and East Prussia would permit the Wehrmacht a much more rapid pace of concentration and deployment than Soviet railroads could for troops in the Bialystok Salient. These factors represented a substantial handicap for Soviet defensive preparations between 1939 and 1941.

The question remains, however, whether the Soviets can be accused of failing to appreciate the full dimensions of the German threat and particularly the potential decisiveness of Blitzkrieg. Between 1939 and 1941 the Soviet military had substantial opportunities to test its own doctrine and to observe the German Panzers and Luftwaffe in operation. Soviet failures during the winter offensives in Finland revealed the Red Army's unpreparedness for war. Marshal S. K. Timoshenko's appointment as Commissar of Defense and General Meretskov's replacement of Marshal B. M. Shaposhnikov as Chief of the General Staff were predicated on a need for fundamental reforms. Both officers used the late summer and early fall of 1940 to inaugurate a series of exercises

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designed to test small unit command and combat readiness. Timoshenko, borrowing from M. T. Dragomirov's axioms on training for the Imperial Russian Army, pressed for greater realism and took his crusade from military district to military district.

At the same time, the Soviet military had enjoyed a substantial success in the Far East, where General Zhukov's forces in August 1939 inflicted a major defeat upon the Japanese 6th Army at Khalkhin-Gol. 24 In that conflict a border dispute between Manchukuo and Mongolia had gone from a minor incident in May to full-fledged combat in July. The Soviets fought a covering force action during the early period, and by augmenting their forces turned a substantial defensive engagement in July, into a combined-arms offensive in August, which ended with the encirclement and destruction of the main Japanese forces. 25 At Khalkhin-Gol, Zhukov had applied the principles of deep operations to achieve a stunning success. But the course of this campaign seemed to suggest that the initial period of hostilities would take on a prolonged character and involve a substantial interval between the engagement of covering forces and the commitment of main elements to battle. This perception reinforced certain tendencies within the General Staff to emphasize the ancillary nature of initial operations.

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The question of the potential decisiveness of initial operations had, however, been a topic of sharp debate within the Red Army from the very beginning of the serious discussion of "future war" and the "initial period of

war. "26 In 1929, Ia. Ia. Alksnis raised the question of using air strikes against an opponent to disrupt his mobilization and deployment of forces and to rob him of the initiative. 27 Alksnis' two-part article, which appeared in Voina i revoliutsiia, was part of an intense effort by Soviet officers to study the potential nature of "future war." 28 A number of Soviet officers, notably V. Novitsky and A. N. Lapchinsky, addressed the question of independent air operations aimed at disrupting the mobilization and deployment of forces at the start of hostilities. 29 In 1931, R. P. Eideman, who was then Chief of the Frunze Military Academy, directly addressed the impact of new mechanized forces and aviation on the conduct of operations during the initial period of war. These qualitatively new forces were bringing about a fundamental change in the conduct of initial operations. War would come without declaration as air and mechanized forces struck across the frontier in advance of the main forces, disorganizing the defense as they penetrated. Flanking operations, leading to encirclements of covering forces, were to be expected. For a successful defense against such a threat Eideman emphasized the maintenance of large, highly mobile covering forces. 30 E. A. Shilovsky used the term "creeping up on war" (vpolzanie v voinu) to describe this process, but concluded that temporary advantages could be off set by total national mobilization for war. He and other Soviet authors addressed the problem of covering forces as the most immediate instrument in dealing with surprise attack by mechanized forces supported by aviation. 31 M. N. Tukhachevsky emphasized the increased vulnerability of forces undergoing mobilization from air attack, mechanized thrust, and airborne assault. Tukhachevsky recommended that in the face of the

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air threat that strategic deployment be undertaken at a depth of 250 kilometers from the frontier. However, the side most effectively employing the new means of mechanized warfare would be able to strike deeply into enemy territory and, within a week of the start of hostilities, engage the enemy's main forces under favorable circumstances. The only answer, in such circumstances, for the power which lost command of the air was to carry out its concentration and deployment of forces still further from the frontier. The May 1936, Pravda carried an article on the initial period of future war by Kombrig. S. N. Krasil'nikov, who was then serving as a department head at the Frunze Military Academy. Krasil'nikov argued that any future war would begin in a radically different manner than that of 1914. As Manchuria and Ethiopia had earlier demonstrated, war would start with provocations by the aggressor, followed immediately by massed strikes of aviation and motorized forces intended to cut the defender's forces to pieces, sow confusion, and paralyze mobilization, concentration, and deployment of main forces. The side of the strike and paralyze mobilization, concentration, and deployment of main forces.

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With the start of large-scale hostilities in 1939, the Soviets had opportunities to observe the impact of initial operations. Their own experiences at Khalkhin-Gol and in Finland seemed to confirm to some observers that such initial operations were not themselves likely to be decisive. This line of argument found expression in a wide range of publications and reports at military conferences. Chief of Staff of the Baltic Special Military District, Lieutenant General P. S. Klenov pursued this line of argument at the December Conference of senior military commanders and their staffs. Klenov saw

initial operations by covering forces, including close cooperation between tactical aviation and mechanized forces as essentially spoiling operations. The covering forces were supposed to attack, disrupt enemy deployment, seize advantageous jump-off points, and generally create favorable preconditions for the deployment of main forces. The March, 1941, Colonel A. I. Starunin addressed "operational surprise" and outlined six missions in the initial period of war, including seizure of command of the air, destruction of enemy supply and fuel stocks, disruption of the opponent's mobilization in some districts, paralyzing the transportation system to stop or delay deployment of main forces, seizure of certain specific areas of military or political importance, and destruction of the enemy's covering forces and part of the main forces as they deployed on the main strategic axis. Surprise in this context became a means for winning the frontier battles and creating favorable opportunities for further operations.

As events in Poland and the West had shown, the Wehrmacht had achieved substantially more in two lightning campaigns. Some officers, notably G. S. Isserson, had foreseen the possibility of combining surprise and deep meeting engagements to destroy an enemy army in the process of deployment. However, experience in Spain had also convinced some commentators that the possibilities of deep operations were much more limited than its theorists had suggested. Isserson answered his critics by pointing to the German attack upon Poland, in which the Wehrmacht had used external lines, mobile groups, and battles of

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encirclement to destroy the Polish armed forces. Isserson stressed the need for further study of the initial operations of the new imperialist war. In Poland, Germany had achieved what Isserson described as "strategic surprise." 37

A number of Soviet military writers saw in German operations in Poland and the West confirmations of Isserson's assessment regarding the decisive character of mechanized operations in the initial period of war. These authors noted the repeated German use of surprise to confront their opponents with the unexpected, to disrupt his planning, and to seize the initiative. M. P. Tolchenov specifically called attention to the German high command's penchant for surprise and anticipated that it would seek to use such against its opponents. 48 Major B. S. Belianovsky called attention to the German use of panzer divisions as mobile groups in Poland and the West, in which he emphasized their decisive use in achieve operational-strategic objectives: "to achieve the rapid destruction of the Polish armed forces through the dismemberment of the Polish front into a series of isolated sections, acting on external operational lines to cut these units off from support and to bring about the destruction of enemy forces in those sectors, robbing them of the possibility of organizing any sort of combined action. "39 Belianovsky noted the high tempo of the mobile groups' advance and underscored the pacing and operational pauses which were the inevitable result of such intense combat action over such substantial distances. In this manner he described the conduct of battles of encirclement and identified the key to German successes as surprise, speed, and superior command and control of mobile formations. 40

Relianovsky noted that the Germans had managed to achieve the immediate and integrated use of mechanized "covering forces" and main forces, composed of infantry divisions, in decisive concentrations on the main strategic axes.

Creeping up to war had become the leap into war. Soviet authors credited the German Panzer-Luftwaffe "fist" with substantial shock effect and underscored the role of a highly effective command and control system as a combat multiplier during the Battle of France. P. Kisliakov and V. Usov described the growing net of radio communications in the German and US armies as pointing the way toward a radical improvement in command and control capabilities. Most importantly, Soviet authors understood the German efforts to employ surprise in a multitude of forms as a combat multiplier. The unresolved issue was how might the Soviet Union deal with that threat as Nazi-Soviet relations deteriorated from the late fall of 1940 to the spring of 1941.

The Soviet military and political elites undertook a series of prudent measures to improve the Soviet defensive posture during those last months of peace. The USSR, as it had during the Czech Crisis of 1938, did its own creeping up to war. But Soviet Russia, just like tsarist Russia, faced a number of objective dilemmas when it confronted the problem of the initial period of war. While the Soviet Union had made great economic strides during the industrialization drives of the 1930's, it now had to deal with a potential opponent, which had put its economy on a war footing and now had the opportunity to organize the economy of occupied Europe to its ends. At the same time the USSR still had the problem of great distance to overcome in its

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own efforts at civil and military mobilization. The result was a basic assymetry between the two powers' ability to initiate hostilities from a standing start. Soviet military doctrine emphasized intensive actions during the initial period of war, but it still saw those actions in terms of covering force engagements, in which the forward elements of the first strategic echelon would disrupt enemy deployments, while protecting the deployment of the rest of the first strategic echelon and provide the time for the mobilization, concentration, and deployment of the second strategic echelon.

The Commanders' Conference of December 1940 and the War Games of January 1941, however, pointed out a number of dilemmas associated with this posture. The reports, including that by Zhukov as commander of the Kiev Special Military District, pointed towards the new offensive potential which the Germans had unleashed in Poland and the West. Soviet commentators could take some consolation in the fact that German application had followed Soviet theory as outlined in the works on deep operations. Among those speaking at the December Conference was General of the Army I. V. Tiulenev, Commander of the Moscow Military District. Addressing the theme of army defensive operations, Tiulenev explicitly admitted that Soviet defensive doctrine was the antithesis of the deep operation but stated that the doctrine had not been worked out in detail. In his talk Tiulenev never addressed front defensive operations or the problems of coordinating the defensive operations of several fronts to meet the threat of an enemy general offensive. In discussing the role of covering forces, Tiulenev expected that these combined-arms forces would operate behind well-prepared, defensive positions. A combined arms army was expected to cover a front of 100 kilometers and deploy over a depth of 100-120 kilometers, with each division defending on a frontage of 8-12 kilometers. The defense was supposed to be deeply echeloned, multi-belted, and well-prepared with engineering assets. The army command had to pay close attention to the problems of anti-tank, anti-artillery, and anti-air defense. Tiulenev emphasized the role of mobile groups in dealing with two threats. First, light mobile formations had to exist throughout the depth of the defense to counter enemy airborne landings and assaults. These units, essentially fire brigades, were to be rushed to the drop zones as soon as the threat appeared and begin the process of suppression. The other use of mobile groups was to counter enemy mechanized formations. Tiulenev stressed the need for combined arms support of these tank-heavy units and emphasized their role as a counter-attack force in containing enemy breakthroughs and robbing the enemy of the initiative. 46

The stubborn fact of the spring of 1941 was that the Western borderlands posed a new and different set of problems relating directly to the conduct of operations in the initial phase of the war. Zhukov, for one, pointed explicitly to the lack of depth in the forward areas of the fortified zones. These had been placed too closely to the state frontier. In addition, these new fortifications had been built from scratch. To do this the Soviets had to strip the older positions along the old state border, mobilize both civilian and military construction brigades, and even strip combat formations, including the districts' artillery parks, of their prime movers. Even with this effort,

the pace of construction was painfully slow. 48 General D. G. Pavlov, commander of the Western Special Military District, was dismayed by the poorly developed transportation net servicing his forward divisions in the Bialystok Salient. 49 From Soviet reports of the January War Games it would appear that these features did, indeed, come into play, leading to a situation where neither Meretskov nor Pavlov could explain the unexpected outcome of the games. Stalin's displeasure led to Zhukov's appointment as Chief of the General Staff and a marked acceleration of preparations for war. 50

As prudence dictated, the Soviets continued their own practice of creeping up on war by engaging in covert mobilization which would allow them to improve substantially their defensive posture without provoking a preemptive move by Hitler's Germany. Overt mobilization was, as Marshal Shaposhnikov described it in Mozg armii, an act of war, which would impose the onus for starting hostilities upon the USSR. In the spring of 1940, prior to the German success in France, Shaposhnikov had directed the work of two assistants in the operations directorate of the General Staff, N. F. Vatutin and G.K. Malandin, in drafting a new war plan. One of its assumptions was that German concentration along the western frontiers would take at least fifteen days; another was that Soviet intelligence would provide timely warning of this concentration to permit active countermeasure. Instead of weeks, the General staff provided only a few hours warning to the military districts upon which the full weight of the German blow was about to fail. 52

German surprise was not only a matter of timing. In its pre-war planning, known as "Plan for the Defense of the State Borders 1941," the Soviet General Staff had designated, as the likely avenue of a German advance, one through the Ukraine toward the Caucasus. When originally drafted by Shaposhnikov, then still the head of the General Staff, the proposed plan had at first envisioned a main attack through Belorussia on the Minsk-Smolensk-Moscow axis as the probable German operational line. However, between the drafting of the plan and its presentation to Stalin and other Politburo members a new Chief of the General Staff, Meretskov had been appointed. Neither he nor Marshal Timoshenko, the Comissar of Defense, found reason to object to Stalin's assertion that the Kiev-Caucasus axis was the more likely operational line of advance. One consequence of this decision was to raise the question of where Soviet forces should be concentrated to launch their counterblow after the initial battle of covering forces. Stalin opposed the decision to place the main effort in the Western Special Military District and opted for a concentration in the Kiev Special Military District. 53 Stalin was proven wrong on this judgment, but his rationale contains a compelling clue to his assessment of the threat. Soviet general staff officers had been drumming on the theme that prudence required that any state plan its initial operations to achieve decisive results, but that it also prepare for the eventuality of a protracted war. 54 Marxist-Leninist ideology emphasized the primacy of the mode of production in determining the socio-political and economic capabilities of belligerents to conduct war. In trying to foresee the situation from a German perspective, Stalin believed that in the case of a prolonged struggle the industrial wealth, agricultural products, and raw

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materials of both regions would be vital to the Reich's ability to continue the struggle. In this judgment Stalin can be accused of over estimating the professional competence of Hitler and the German High Command. 55

In May 1941 the <u>Narkomat Oborony</u> accelerated its preparations and issued orders that the military districts along the western borderlands prepare to receive the deployment of a second strategic echelon and to assign some units from each district's reserve to this. These units remained deep within the districts and denied the covering forces an adequate operational reserve.

General M. P. Kirponos, Zhukov's replacement as commander of the Kiev Special Military District, recognized this very dangerous situation and pointed out to his staff that it robbed his first and second echelon covering forces of an operational reserve with which to influence initial operations. The General Staff still underestimated the scale of the German threat and its immediacy.

Moscow assumed that these redeployments would shift the correlations of forces along the frontier. The first echelon of the covering forces, 56 divisions, were deployed 20-80 kilometers. from the border. Their second echelon, composed of the mechanized corps and rifle corps, numbered 52 divisions and were located 50-100 kilometers from the border. These forces were to counterattack to stop the enemy advance and create favorable conditions for a Soviet offensive. The general terms these forces in the Western Special Military District, as opposed to those in the Kiev Special Military District, were closer to the frontier because of the geographic configuration of the

Bialystok Salient. Considerations of time and distance demand that the response of General Pavlov's Western Front to enemy pressure be immediate. Stavka's repeated demands for immediate counterattacks by the covering forces on June 23 were a recognition of this fact. Under pressure from powerful blows spearheaded by two of the four <u>Panzergruppen</u> operating on the Eastern Front, dislocated by German operational surprise, and pounded by the Luftwaffe which had seized command of the air, Western Front was in no position to execute that mission. At the same time General Pavlov and his staff did not provide effective command and control in a rapidly deteriorating situation, lost control of their own forces, and failed to keep Stavka appraised of the situation. ⁵⁸

The reserves of the western military districts, which might have provided additional forces for these frontier battles, were deployed behind the covering forces and numbered 62 divisions. In the month prior to the outbreak of war these units were on the move, many of them having been dedicated to support of the second strategic echelon. Located at 100-400 kilometers from the border, these reserves were not in a position to lend immediate support to the covering forces in the frontier battles. Instead, they were expected to support the second strategic echelon in executing a Soviet offensive, once the covering forces had wrested the initiative from the attacker. ⁵⁹

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As Fugate has pointed out, the Soviet high command had initiated strategic redeployments in mid-May, moving major formations form the Ural, Transbaikal, Far Eastern, Kharkov, and North Caucasian military districts to the threatened western borderlands. However, there is nothing in these moves to suggest a shift

in the operational center of gravity from south of the Pripet Marshes to the north. On the contrary, these redeployments seem to have been intended to provide the Kiev and Western Special Military Districts with the strategic echelon necessary to execute the offensive outlined in War Plan 1941. Four armies, the 16th, 19th, 21st, and 22nd, were on the move during the final month of peace: the 16th towards the Berdichev-Proskurov area, the 19th to the Cherkassy-Belaia Tserkov area, the 21st to the Chernigov-Konotop area, and the 22nd to the Idritsa-Sebezh-Vitebsk area. From these dispositions two of the armies were clearly dedicated to the Ukraine, one to Belorussia, and the fourth, the 21st, could support an effort in either sector. All but 16th Army were assigned to areas with access to the best north-south rail links between Moscow and the border, making it possible to shift these forces laterally. These movements in conjunction with the redeployment of the districts' operational reserves promised a greatly enhanced combat capability when completed. In the short run, however, the moves weakened the abilities of the front commanders to conduct a deeply echeloned defense. This fact had troubled General Kirponos. While 77 divisions were set in motion during the final month of peace, only nine had completed their redeployments by June 22.61

The Soviet High Command's attention remained focused on the Ukraine during this period as the most probable area of main German effort. One crucial indication of this perception was the Politburo's authorization for the creation of a new front in case of mobilization to meet the increased threat posed by German-Rumanian operations against the flank of the South-Western Front, which

was the mobilization designation for the Kiev Special Military District. request for this action had come from the Odessa Military District, which under "KOVO 41" has been assigned the role of supporting 9th Army's defense of the Soviet-Rumanian frontier. New intelligence, however, indicated a substantial threat from this quarter aimed at cutting off and encircling the covering forces of the Kiev Special Military District. Narkomat Oborony on the recommendation of the General Staff responded to this threat by creating the Southern Front, covering the area Leovo to the Black Sea Coast. The Politburo approved the decision on June 21. The front command structure did not come from the Odessa Military District but from personnel assigned to Moscow Military District. When war came the next day these officers were not even in route, and actual leadership reverted to the ranking officers in Odessa and at the MD's forward command post, which had just been activated. Even at this stage just before the blow fell, the Soviet High Command was still treating the Ukraine-Caucasus axis as the decisive operational line of the anticipated campaign. In fact, the high command would only shift its perception of the threat after nearly a week of intensive fighting and the destruction of much of its covering forces in the Western Special Military District.

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These main covering forces varied in composition from military district to military district, depending upon the terrain, road net, and the anticipated weight of the enemy blow, should it come. On the likely main axes of advance the Soviets deployed a combined arms army, supported by one or two mechanized corps. Out of a total of 170 divisions and 2 brigades assigned to the four

western military districts, only 56 were assigned to the first echelon and most of these were rifle divisions. The Soviet war plan for 1941 envisioned bringing these divisions up to full strength before the outbreak of hostilities and reenforcing the military districts with additional units. These moves had only been under way for a month prior to the outbreak of hostilities, and the every effort had been made to conceal these movements for sound operational and political-strategic reasons. At the same time maskirovka increased the time necessary to carry out the redeployment. The war plan envisioned a timely reinforcement of the covering forces, but this had not, in fact, occurred.

The backhone of the combined arms armies, which composed the covering forces, was the rifle division, formed into rifle corps. Each army contained two or three corps. According to its TN&E, the Soviet rifle division of 1941 was supposed to contain 14,483 men, 294 guns and mortars, 16 tanks, 13 armor cars, 558 autos and trucks, and 99 tractors, and 3,000 horses. Most of its transport was, however, still horse drawn. The division had a triangular organization of three infantry regiments, supported by two artillery regiments, anti-air and anti-tank battalions, and two other independent battalions of engineers and communications troops. The rifle division was larger than its German counterpart in theory, but, in fact, along the western borderlands most rifle divisions were not at full strength. Divisions of the first echelon averaged 8-9,000 men each, while those of the second echelon were a little over 6,000 men. In addition, all divisions were short of staff and communications equipment. In terms of training Soviet troops were inferior to their German counterparts in actual

combat experience; many Soviet conscripts had only begun their basic military instruction with their call up in the fall of 1940. Summer camps, field exercises, and maneuvers of 1941 were supposed to provide advanced infantry training, and begin troop exposure to combined arms tactics. Instead, these soldiers would receive their instructions from that most unforgiving master, Mars. 65

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Western historians, in studying the failure of German logistics during operation Barbarossa, have pointed out that the Wehrmacht which invaded the Soviet Union was still a pre-mechanized army with a hard-core of mechanized strike forces. The same is true of the Soviet Army only more so. In 1940 its automobile industry produced only 145,000 vehicles, of which 136,000 were trucks. The Red Army could mobilize a substantial portion of civilian vehicles and had the advantage of a standardized park, but its industrial base in this area was grossly inferior. For strategic operational mobility Soviet divisions still depended upon rail movement. Operational-tactical mobility meant mare and shank's mare. 66 Limited tactical mobility against German panzer divisions, when coupled with surprise, created an impossible strain upon the defense and enhanced the probability that these forces would suffer encirclement and destruction in the initial period of war. Their only hope was that Soviet mobile forces would be close at hand to contain and destroy German armor.

The Achilles Heel of Soviet combat forces in 1941 was unquestionably the newly-organized mechanized corps. ⁶⁷ The decision to disband, then reform, and, finally, radically expand the number of mechanized corps created organizational

and doctrinal chaos. When the impact of the Purges and radical expansion of the officer corps in the pre-war years are taken into account, the wonder is that these initial units achieved anything against a battle-tested, confident, and well-armed opponent. In 1940, in the wake of the German successes, the Politburo reversed its decision and authorized the creation of nine mechanized corps. Following the War Games of January 1941, the Politburo authorized the creation of an additional twenty mechanized corps. Each mechanized corps was composed of two tank and one motorized rifle division for a total strength of more than 40,000 men and 1,000 tanks. While impressive in size, most of these units lacked the latest means of command and control to manage a fluid battle, were only in the process of formation, had not yet been equipped with new T-34 and KV-1 tanks, and had been unable to complete their basic training. Neither officers nor men had had the opportunity to master the art of combined arms combat on such a scale. 69 Between February and June there simply was not sufficient time even to begin to organizing so many formations, much less equip them. Many of the new units were understrength, and most were equipped with obsolete vehicles that were no match for German armor in combat and could not be effectively maintained or even complete a modest march without a good portion of a tank regiment's vehicles dropping out of line because of mechanical failures. Although there were six mechanized corps with the Western Special Military District in June 1941, only the VI mechanized corps attached to 10th Army was at full combat strength. 70

This situation was doubly damning for the Red Army because of the threat posed by the German panzer divisions and because Soviet defensive doctrine expected so much from these very mechanized corps. Soviet commentators had recognized the vital role which massed mechanized formations would play in the exploitation phase of deep operations and had posited the problem of introducing such formations at the crucial moment of the breakthrough, when their timely appearance might forestall the efforts of enemy mobile reserves, thus limiting their freedom of action. In defensive operations Soviet mechanized corps were expected to perform precisely this role.

In late 1940 Major General A. I. Shtromberg called attention to the failure of the French and British Armies to make effective use of tanks in the defense and credited their inability to stop the panzers to this oversight. Shtromberg described tanks as basically an offensive weapon but noted that their mobility and firepower could be exploited throughout the depth of the defense. While addressing the issue of tank formations in the forward defensive area and tactical zone, Shtromberg focused his attention on the mass employment of tanks in the army operational zone. There massed armor might contain an enemy breakthrough while in the army's rear defensive zone massed tank formations might be used to engage enemy mobile groups. In both these roles the general stressed the massed use of armor and the problem of coordinated attacks. Tanks were supposed to be used as an anti-tank weapon within the context of a deeply-echeloned defense. Shtromberg enumerated a number of problems which would plague Soviet efforts to use the newly created mechanized corps in 1941: the need for

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massing of forces and means in the armor counter-thrust, the emphasis upon timing the introduction of these forces into the battle, and the problem of maneuvering the formations in an environment dominated by enemy aviation. Finally, he called attention to the vexing problem of the attrition of such forces in the counter-attacks and warned that intensive action could quickly reduce the ability of tank formations to engage in sustained combat. Such defensive operations by tank forces put a premium on combined arms combat in conjunction with artillery and motorized infantry units, but as Lieutenant General Ia. N. Fedorenko, Chief of the Auto-Armor Directorate of Narkomat Oborony, pointed out, little had been done to put the field regulations into practice. 73

Soviet artillery had undergone a substantial reorganization after the dehacle in Finland and was in the process of introducing new weapons systems and artillery concepts. On the eve of the war the RKKA's artillery park numbered 67,335 guns and mortars (not counting the 50mm tubes). These assets were divided into two elements: the guns assigned to troop formations and those subordinated to the Reserve of the Main Command (RGK). RGK assets included a substantial part of the RKKA's heavy artillery, and after the Winter War its share had risen to more than 8 percent of all tubes. Because of the threat posed by German panzer divisions, the Main Artillery Administration of Narkomat Oborony had promoted the formation of ten anti-tank brigades, composed of 120 anti-tank guns, a sapper battalion assigned to prepare anti-tank barriers and lay anti-tank and anti-personnel mines, and some anti-aircraft assets. The first of these brigades was authorized in April 1941, and two were assigned to the Southwestern Front under

the command of two promising young officers, K.S. Moskalenko and M.I. Nedelin. These brigades were to be placed in prepared defensive positions along main avenues of advance. Covering a frontage of 4-5 kilometers, the 120 guns, which included the new 85mm anti-tank/AA gun, were expected to stop a panzer division in its tracks. However, the theory required close cooperation between the anti-tank brigades and neighboring infantry and tank formations. None of this had been worked out in practice. Only one such brigade had been formed in the Western Special Military District, and it was at only 30 percent of strength on June 22.75

Soviet military doctrine asserted that the Air Force (VVS) and Air Defense Forces (PVO) were vital to success during the initial period of war. But command of the air was envisioned as a precondition to and not a substitute for victory on the ground. In the late 1930's, Kombrig A. N. Lapchinsky described the air army as the key to victory in modern operations. "In order to conduct maneuver war, to win the air-land battles, which begin in the air and end on the ground, one must concentrate all air forces at a given time, on a given front." For Lapchinsky, command of the air began with the air defense battle, which he envisioned as a defense of one's own air space and a maximum effort against "the airfields and objects of the enemy's aviation rear." Diversion of air assets away from support of ground operations in order to attack deep strategic targets would lead to a reduction of the effort in the main sector and undercut the chances of victory in the "unified air-land battle." Air assets were supposed to be used in mass, but Lapchinsky insisted that each level of command from

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division to Stavka needed some organic air assets, leading to a dispersal of air power to aviation of the high command, frontal, corps, and troop. The implications of such a doctrine are clear when we note that, while Lapchinsky envisioned the massed use of air assets on the main strategic axis, his proposals for the distribution of air power with a front failed to provide substantial resources for the front commander to conduct operations. Of 3,510 planes assigned to the units making up a front, the front commander would have direct control of only 810 aircraft. This inability to find an appropriate allocation of air assets, which would guarantee unity of command, economy of force, and concentration of effort, radically reduced the effectiveness of Soviet air power in the first period of the war.

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Following the outbreak of World War II Soviet air theorists and commanders had an opportunity to assess their own air theory against practical experience. They continued to emphasize the need to win command of the air as the decisive element of operations in initial period of war. However, their own experiences of the "little wars," i.e., Spain, Lake Khasan, Khalkhin-Gol, and Finland, served as a prism through which they evaluated air operations in Poland and the West. VVS officers acknowledged the need for a concentrated air effort and tended to see the air war as essentially attrition, in which victory went to the side with the greatest assets and the best equipment. Inaccurate in some crucial technical details, Major General P. P. Ionov's commentary on German air operations during the Battle of France emphasized the "skilled and massed use" of the Luftwaffe in the struggle for command of the air and called attention to simultaneous, massed

attacks upon 70 Allied airfields in Holland, Belgium and France. 81 Although recognizing the contribution German air power made to the <u>Blitzkrieg</u>, he did not draw attention to the impact of surprise. Neither did the Commander of the VVS, Lieutenant General Rychagov, during his report on the air force in offensive operations and the struggle for command of the air to the December Conference. In light of the Luftwaffe's successes many senior VVS commanders did criticize the decentralized control of air assets under the existing structure, but no alternative was approved before the German attack. 82

Like Soviet mechanized forces, the VVS and PVO were numerically impressive but faced serious organizational and doctrinal problems which affected the combat capabilities of the air units assigned to the covering forces. The VVS and PVO too were undergoing rearmament, and of the entire Soviet air park of 17,745 planes only 3,719 were of the latest models. Some of these new models were themselves having serious teething problems. The inattention to the problem of surprise in initial air operations was aggravated by two situations directly affecting frontline VVS and PVO units, i.e., the shortage of airfields in the newly annexed western territories and the training-orientation process, which many air divisions were undergoing and left them equipped with both new aircraft and older models. This high density and low level of combat capability rendered these units doubly vulnerable to the sort of blow, which Soviet air doctrine had articulated and which the Luftwaffe had executed in May 1940. Soviet air theorists had, however, assumed that before hostilities began it would be possible to disperse air assets from their main air bases to secondary fields.

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They counted upon an interval of time between the initiation of hostilities and the engagement of main forces. No such warning arrived before the main blow fell. In this case, the failure to make a timely transition from peacetime posture to war footing cost the VVS and all Soviet covering forces along the western borderlands dearly. Again, the main enemy blows fell most heavily upon the forces of the Western Special Military District. Of the 1,200 aircraft, which the Soviets admit were destroyed by the Luftwaffe on June 22, 758 belonged to that military district. The air bases and rear services of its eight air divisions had been pounded out of commission, and before they could be put back into action were overrun by German Panzers. Having lost the air portion of the air-land battle so quickly and decisively, General Pavlov's csovering forces were doomed to defeat. 85

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In conclusion, the crisis which the German surprise attack imposed upon the Soviet armed forces was most acutely felt by the covering forces. These units were extremely vulnerable to surprise, and the initial crisis of command and control, especially in the Western Special Military District, where the main blow fell, led to a series of disastrous defeats in the first weeks of the war. The problems which the Soviet military faced were real. Writing in March 1941, Colonel A.I. Starunin had begun his article on operational surprise with the telling remark: "The employment of ready-made solutions is the greatest evil in tactics as well as operational art." Impressed with what the Germans had achieved in Poland and the West, Starunin emphasized the importance of surprise as the very negation of stereotypical thinking. For him, "Surprise was achieved

by the unexpected appearance of powerful forces and means in such a sensitive point of the enemy's battle order where he can not counteract them at a given moment with an adequate force."87 When combined with concentration of effort on a main axis and a successful independent air operation to seize command of the air, such surprise could have decisive operational-strategic results. In Poland, the Germans had proven that one could strike with main forces and achieve decision. In the West the Germans had concealed their main axis of advance, while encouraging an Anglo-French advance into Belgium where they could be cut off and destroyed. As these remarks suggest, the Colonel was a prophet without honor, for what the Germans had achieved against the Poles and the Anglo-French, they were about to unleash against the Soviet Union. Soviet covering forces in June 1941 were not ready to meet such a blow.

This treatment of the situation confronting Soviet covering forces during the initial phase of the Great Patriotic War does not seek to mitigate the disasters which befell these forces or explain their fate as a necessary sacrifice foreseen by the genius of a single commander or contained in a long concealed plan for which the documentation has not yet been made public. The initial Soviet defeats were real and unintended. The recovery was painful, costly, and difficult. But the Soviets, unlike the Germans, and made one fundamentally sound pre-war decision. Whatever the plans and however bright the prospects of their success in the initial period of war, one had to prepare for a protracted war involving the total mobilization of the entire society. This prudence and the sacrifices of millions counter-balanced the failure of the

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covering forces in the initial period of the war. As the military balance reverted more to the Soviet's favor, the Red Army was able to get the men and materiel to begin to execute its concept of deeply-echeloned defense. By 1943 theory, tested by the harsh experience of war, was reformulated, and new field regulations were developed. In its revised form Soviet operational art in the defensive was put to the test at Kursk. Denied operational and even tactical surprise, the German armor could not achieve decisive penetrations and was worn down by a stubborn and active defense. At the appropriate time Soviet forces in the northern and southern sectors of the salient went over to the offensive, carrying the Red Army up to and across the Dnieper. It would, of course, be wrong to speak of Soviet military genius in this context. The more modest term, professional competence, does seem deserved. Modern wars are won by professional competence and not the genius of great captains.

NOTES

- 1. Bryan Fugate, Operation Barbarossa. (San Francisco: Presidio Press, 1984).
- 2. Barry D. Watts & Williamson Murray, "Inventing History: Soviet Military Genius Revealed, Air University Review, XXVI, no. 3 (March-April 1985), pp. 102-104. Fugate responded to this critique himself in a later issue of the journal. See: Bryan Fugate, "On Inventing History, "Air University Review, XXXVI, no. 6, (Sept-Oct 1985), pp. 121-125
- 3. Ibid., p.110. The citation of Garthoff's <u>Soviet Military Doctrine</u> and the assertion that defense was not explicitly admitted to be a normal form of combat in Soviet field regulations is nonsense. Soviet forces had stood on the defensive at Khalkhin-Gol through much of the summer of 1939 while sufficient forces were brought into the theater of military action to conduct offensive operations. A reading of the 1936 field regulations beyond the first chapter's "General Principles," must lead to the conclusion that the Red Army accepted defense as a means to an end. See: USSR, <u>Narodnyi Komissariat Oborony</u> [hereafter referred to as <u>Narkomat Oborony</u>] <u>Vremennyi poleyoi ustav RKKA 1936 (PU 36)</u>. (Moscow: Gosvoenizdat, 1937), pp 1 ff.
- 4. Earle Ziemke, "Stalin as a Strategist," Militry Affairs, (December 1983), pp. 173-180.
- 5. S. V. Ivanov, ed., Nachal'nyi period voiny (Po opytu kampanii i operatsii vtoroi mirovoi voiny). (Moscow: Voenizdat, 1974). pp. 4-22. A reading of Nachal'nyi period voiny in isolation from other Soviet literature on military theory can create a false impression that Ivanov and his collective were the first Soviet authors to turn their attention to the problem of the initial period in future war. In fact, this was a lively topic of debate and discussion in the 1920's and 1930's. In 1934 Voina i revoliutsiia, the RKKA's leading theoretical journal and the direct precursor of Voennaia mysl', carried a lengthy bibliography on problems of future war and operational art, in which the initial period of war featured prominently: N. Ivanov, "Voennotekhnicheskais literatura po voprosam kharaktera budushchei voiny i operativnogo iskussstva," (March-April 1934), pp. 112-117. The point is also made is a recent Soviet work on Soviet military theory. See: M. M. Kir'ian, Problemy voennoi teorii v sovetskikh nauchno-sprayvochnykh izdaniiakh. (Moscow: Nauka, 1985), pp. 114-125. Relevant to the content of this article and the debate between Watts-Murray and Fugate is a final observation by General Kir'ian regarding Soviet interpretations of just when the initial period of war ended during the Great Patriotic War. Kir'ian explicitly acknowledges some debate on this matter, notes that the traditional date has been December 1941, when Soviet forces went over to the counteroffensive at Moscow, but also cites July 1941, i.e., the Battle of Smolensk, when the initial momentum of the Wehrmacht's first operations broke. He informs his reader, "Now the second point of view [i.e. July 1941] is accepted." (p. 125).
- 6. V. K. Triandafillov, <u>Kharakter operatsii sovremennykh armii</u>. (Moscow: Gosvoenizdat, 1929). On Triandafillov's contribution to the development of Soviet operational art before his death in 1931 see: R. Savushkin, "K voprosu o zarozhdenii teorii posledovatel'nykh nastupatel'nykh operatsii (1921-1929 gg.)," <u>Voenno-istoricheskii zhurnal</u>, no. 5 (May 1983), pp. 77-83.

- 7. M. N. Tukhachevehy, "Koprosu o sovremennoi strategii" in <u>Voina i voennoe iskusstvo vr svete istoricheshojo materializma</u>. (Mosov: Goszdat, 1927). p.127.
- 8. G. Isserson, "Operativnye perspektivy budushchego," <u>Voennaia mysl'</u>, no. 8 (August 1938), pp. 14-19. On Soviet deep operations theory see: Earle Ziemke, "The Soviet Theory of Deep Operations," <u>Parameters</u>, XIII, no. 2 (1983), pp. 23-33.
 - 9. Vremennyi polevoi ustav RKKA (1936), pp. 9-20.
- 10. Ibid. pp. 82-95. See also: G. Isserson, "Vstrechnoe srazhenie budushchego," Voennaia mys1', no. 7 (July 1938), pp. 10-26.
- ll. G. Isserson, Novye formy bor'by. (Moscow: Voenizdat, 1940), as cited in: A. B. Kadyshev, ed., Voprosy strategii i operativnogo iskusstva v sovetskikh voennykh trudakh (1917-1940 gg.). (Moscow: Voenizdat, 1965), pp. 419-438.
 - 12. Vremennyi polevoi ustav RKKA (1936). pp. 132-158.
 - 13. Ibid., p. 132.
 - 14. Ibid., pp. 133-134.
 - 15. Ibid., p. 134.
 - 16. Ibid. 134-136.
- 17. Ibid. 136-150. According to a recent Soviet study of the development of the tactics of the combined-arms battle in the inter-war period, between 1939 and 1941 the widths and depths for corps and division defense underwent change from those outlined in PU 36 with the most conspicuous shift being narrowing of the frontage and increasing of the rifle division's depth. See: R. A. Savushkin and N. M. Ramanichev, "Razvitie taktiki obshchevoiskogo boia v period mezhdu grazhdanskoi i Velikoi Otechestvennoi voinami," <u>Voenno-istoricheskii zhurnal</u>. no. 12, (December 1985), pp. 25-28.
- 18. A. T. Stuchenko, Zavidnaia nasha sud'ba. (Moscow: Voenizdat, 1964), pp. 62-69. The silence of recent Soviet works on the impact of the purges upon the development of military thought in the 1930's is all the more evidence that this painful event for the officer corps still cannot be treated with anything close to candor. Korotkov for one discusses the development of deep operations theory without once mentioning the decapitation of the RKKA's leadership or the impact that Stalin's purges had upon discussion and debate within professional circles. Although Soviet military theorists now talk a great deal about systems theory and cybernetics, they cannot treat a case of systemic dysfunction, bordering on system catastrophe with honesty. See: I. A. Korotkov, Istoriia sovetskoi voennoi mysli. (Moscow: Nauka, 1980).

- 19. Kir'ian, Voenno-tekhnicheskii progress i Vooruzhennye Sily SSSR. (Moscow: Voenizdat, 1982), p. 137. See also: Zhukov, Vospominaniia i razmyshleniia. (Moscow: Novosti, 1983), I, pp. 253-254; A. Eremenko, The Arduous Beginning. (Moscow: Progress Publishers, 1966), pp. 13-17; and A. V. Anfilov, Proval "blitskriga". (Moscow: Nauka, 1974), pp. 115-119.
- 20. Ivanov, Nachal'nyi period voiny, pp. 197-201; and Anfilov, Proval "blitskriga". pp.101-109.
 - 21. Ivanov, Nachal'nyi period voiny, p. 207.
- 22. Vasilevsky, <u>Delo vsei zhizni</u>. pp. 93-95; Zhukov. <u>Vospominaniia i razmyshleniia</u>. pp. 206-208; I. V. Kovalev, <u>Transport v Velikoi Otechestvennoi voine (1941-1945 gg.)</u>. (Moscow: Nauka, 1981), pp. 26-27; and S. S. Kosovich and A. M. Filimonov, <u>Sovetskoe zhelezno-dorozhye (Voenno-istoricheskii ocherk</u>). (Moscow: Voenizdat, 1984), pp. 84-86.
 - 23. Anfilov, Proval "blitskriga". pp. 140-154.
- 24. Amnon Sella, "Khalkhin-Gol: The Forgotten War," Journal of Contemporary History, 18, no. 4, (October 1983), pp. 651-688.
- 25. I. E. Krupchenko, "Primenenie sovetskikh tankovyk voisk v boevykh deistviiakh" in: P. A. Zhilin, ed., <u>Pobeda na reke Khalkhin-Gol</u>, (Moscow: Nauka, 1982), pp. 70-80.
- 26. Korotkov, <u>Istoriia sovetskoi voennoi mysli</u>, pp. 129-144. The topic of future war was a most important one among RKKA theorists. In 1934 N. Ivanov published a substantial bibliographic essay on the topic citing both Soviet and foreign works on the topic. See: N. Ivanov, "Voenno-tekhnicheskaia literatura po voprosam kharaktera budushchei voiny i operativnogo iskusstva," <u>Voina i revoliutsiia</u>, (March-April, 1934), pp. 112-117.
- 27. Ia. Ia. Alksnis, "Nachal'nyi period voiny," <u>Voina i revoliutsiia</u>. kn. 9 (1929), pp. 3-22 and kn. 10, (1929), pp. 3-15. Alksnis combined his treatment of mobilization as an historically conditioned problem with a close attention to the employment of a "pre-mobilization period" to improve the correlation of forces in favor of one side or the other. Of the three cases of tsarist Russia going to war, i.e., 1877-1878, 1904-1905, and 1914-1917, he noted that geographic, economic, political, and military factors had radically affected the utilization of the pre-war period.
- 28. <u>Sovetskaia voennaia entsiklopediia</u>. 2 vols, incomplete, (Moscow: Gos. Slovarno-Entsiklopicheskoe Izdat., 1933), II, cc. 834-844.
- 29. Viktor Novitsky, "Deistviia aviatsii v nachal'nom periode voiny," Voina i revoliutsiia. kn. 9 (1929), pp. 23-31. Where Lapchinsky had pictured the air force as striking at the enemy's political and economic centers in the initial period of war, Novitsky looked towards the targeting of railroads and assembly points as part of what he called the "struggle for mobilization and deployment."

- 30. R. P. Eideman, "K voprosu o kharaktere nachal'nogo perioda voiny," Voina i revoliutsiia. kn. 8 (1931), pp. 11-12.
- 31. E. Shilovsky, "Nachal'nyi period voiny," <u>Voina i revoliutsiia</u>. (Sept-October 1933), pp. 3-11.
- 32. M. N. Tukhachevsky, "Kharakter pogranichnykh operatsii," in:

 Izbrannye proizvedeniia. (Moscow: Voenizdat, 1964), II, pp. 212-221. In the same year L. S. Amiragov published an article on the character of future wars in which he warned about the potential decisiveness of such initial operations, but emphasized the need for preparations for a long war. He also emphasized the dialectic of the development of military technology, pointing out that the current advantages of offensive systems, i.e., airplane and tank, were likely to bring about the development of defensive technologies, including the employment of both the tank and the plane in defense. He specifically noted that aviation would be less effective in disrupting mobilization and deployment in the USSR because of the depth of its territory. See: L. S. Amiragov, "O kharaktere budushchei voiny," Voina i revoliutsiia, (Sept-October 1934), pp. 3-17.
- 33. S. N. Krasil'nikov, "Nachal'nyi period budushchei voiny," Pravda, (May 20, 1936), p. 2.
 - 34. Anfilov, Proval blitskriga. pp. 179-180.
- 35. A. I. Starunin, "Operativnaia vnezapnost'," <u>Voennaia mysl'</u>, no 3., (March 1941), pp. 27-35. Starunin made the point that surprise also had a special dimension and involved concentration of forces on the main axis of attack. This was what the Germans had achieved in both Poland and France. (p. 29)
- 36. G. Isserson, "Vstrechnoe srazhenie budushchego," <u>Voennaia mysl'</u>, no. 7, (July 1938), pp. 10-26; and "Operativnye perspektivy budushchego," <u>Voennaia mysl'</u>, no. 8, (August 1938), pp. 14-26.
- 37. Isserson, Novye formy bor'by. in: Kadyshev, Voprosy strategii i operativnogo iskusstva v sovetskikh voennykh trudakh (1917-1940).
- 38. M. P. Tolchenov, "Vtoraia imperialisticheskaia voina v zapade," Voennaia mys1', no. 8, (Aug., 1940), pp 37-38.
- 39. B. S. Belianovsky, "Deistviia tankovykh i motorizovannykh voisk v Pol'she, Bel'gii i Frantsii," <u>Voennaia mysl', no. 8, (Aug., 1940)</u>, p. 44.
 - 40. Ibid., pp. 44-49.
 - 41. Ibid., pp. 49-50.
- 42. V. I. Usov and P. D. Kisliakov, "Upravlenie i sviaz' po opytu vtoroi imperialisticheskoi voiny," <u>Voennaia mysl'</u>, nos. 11-12, (November-December 1940), pp. 77-85. Given the limited use of rad os in the Red Army, this article was an agenda for a radical modernization of Soviet command, control and communication capabilities. Without such changes, the resurrected mechanized corps were likely to prove plodding giants in combat against their more agile German adversaries.

On communication problems and the shortage of radios with mechanized units see: N. I. Balaev, et al., Voennye sviazisty v dni voiny i mira. (Moscow: Voenizdat, 1968), pp. 121-125.

- 43. Starunin, "Operativnaia vnezapost'," <u>Voennaia mysl'</u>, no. 3 (March 1941), p. 28.
 - 44. Anfilov, Proval blitskriga, pp. 190-191.
- 45. Zhukov, Vospominaniia i razmyshleniia. pp. 190-191; and Anfilov, Proval blitskriga, p. 162.
 - 46. Anfilov, Proval blitskriga, pp. 162-165.
 - 47. Zhukov, Vospominaniia i razmyshleniia, pp. 194-195.
 - 48. Anfilov, Proval blitskriga, pp. 183-189.
 - 49. Zhukov, Vospominaniia i razmyshleniia, p. 208.
- 50. Anfilov, Proval blitskriga pp. 169-170; Zhukov, Vospominaniia i razmyshleniia. pp. 192-193; Eremenko, The Arduous Beginning. pp. 33-35; M. I. Kazakov, Nad kartoi bylykh srazhenii. (Moscow: Voenizdat, 1965), pp. 56-66; and K. Meretskov, Serving the People. (Moscow: Progress Publishers, 1971), pp. 126-127.
 - 51. Vasilevsky, Delo vsei zhizni, pp. 87-89.
- 52. Barton Whaley, Codeword Barbarossa. (Cambridge, Mass: MIT Press, 1973), pp. 241-145. The key point here is that Hitler not only deceived Stalin but also British intelligence regarding his intentions: surprise attack or political ultimatum. See: F. H. Hinsley, British Intelligence in the Second World War: Its Influence on Strategy and Operations. (New York: Cambridge University Press, 1979), I, pp. 429-483. The Soviets have not been particularly forthcoming on their strategic intelligence in the pre-war period. A valuable assessment of the process in the 1930's has been recently offered by John Erickson, See: John Erickson, "Threat Identification and Strategic Appraisal by the Soviet Union, 1930-1941," in: Ernest R. May, Knowing One's Enemy: Intelligence Assessment before the Two World Wars. (Princeton: Princeton University Press, 1984), pp. 414-423. The key issues here is the timing of the TASS bulletin of June 14 with its denial of any risk of war with Germany or hostile intentions in the Red Army's summer muster and maneuvers and the orders calling for mobilization of more reservists (800,000) and the redeployment of forces toward the western borderlands from deep within the USSR. These orders had been issued in mid-May. Vasilevsky treats the TASS bulletin as a provocation from the Soviet side, designed to draw out a German response and from that an assessment of the immediate threat. Silence, while it was understood to mean hostile intent, took valuable days to register. By then the evidence of an immediate and massive threat had mounted to overwhelming proportions. Vasilevsky, Delo vsei zhizni, pp. 101-104.

- 53. Vasilevsky, Delo vsei zhizni. pp. 88-89.
- 54. Amiragov, "O kharaktere budushchei voiny," <u>Voina i revoliutsiia</u>. (Sept-Oct 1934), pp. 10-12.
- 55. Horst Boog et al., Der Angriff auf die Sowjetunion. in: Das Deutsche Reich und der Zeite Weltkrieg. Stuttgart: Deutsche Verlags-Anstalt, 1983), VI, pp. 98-189.
- 56. I. Kh. Bagramian, <u>Tak nachinalas' voina</u>. (Kiev: Dnipro, 1975), pp. 61-63; and Anfilov, <u>Proval blitskriga</u>, pp. 192-193.
- 57. A. G. Khor'kov, "Nekotorye voprosy strategicheskogo razvertyvaniia Sovetskikh Vooruzhennykh Sil v nachale Velikoi Otechestvennoi voiny," <u>Voenno-istoricheskii zhurnal</u>, no. 1, (January 1986), p. 11.
- 58. I. V. Boldin, "Sorok piat' dnei v tylu vraga," <u>Voenno-istoricheskii</u> zhurnal, no. 4, (April 1961), pp. 64-67.
 - 59. Ivanov, Nachal'nyi period voiny. pp. 211-212.
- 60. Khor'kov, "Nekotorye voprosy strategickeskogo razvertyvaniia Sovetskikh Vooruzhennykh Sil v nachale Velikoi Otechestvennoi voiny," <u>Voennoistoricheskii zhurnal</u>, no. l (January 1986), p. ll. See also: V. Matsulenko, "Nekotorye vyvody iz opyta nachal'nogo perioda Velikoi Otechestvennoi voiny," Voenno-istoricheskii zhurnal, no. 3, (March 1984), p. 39.
 - 61. Anfilov, Proval blitskriga. pp. 200-201.
 - 62. Ibid., pp. 202-203.

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- 63. Ivanov, Nachal'nyi period voiny. pp. 213-215; Anfilov, Proval blitskriga. pp. 117-123; Bagramian, Tak nachinalas' voina. pp. 56-58.
 - 64. Anfilov, Proval blitskriga. pp. 161-164.
 - 65. Ibid., pp. 155-157.
 - 66. Ibid. p. 130.
- 67. Michael Parrish, "Formation and Leadership of the Soviet Mechanized Corps in 1941," Military Affairs, XLVII, no. 2, (April 1983), pp. 63-66.
 - 68. Anfilov, Proval blitskriga. pp. 125-126.
- 69. Kir'ian, <u>Voenno-tekhnicheskii progress i Vooruzhennye Silv SSSR</u>. p. 137; and Anfilov, <u>Proval blitskriga</u>, pp. 125-126.
- 70. Anfilov, <u>Proval blitskriga</u>. p. 126; and A. K. Sul'ianov <u>et al.</u>, <u>Krasnoznamennvi Belorusskii voennyi okrug</u>. (Mosiow: voenizdat, 1983), pp 84-85.
- 71. A. I. Shtromberg, "Operativnoe ispol'zovanie tankov v oborone, "Voennaia mvsl', nos. 11-12 (November-December 1940), pp. 113-114.

- 72. Ibid., pp. 114-119.
- 73. Anfilov, Proval blitskriga. pp. 156-157.
- 74. Ibid., pp. 126-127.
- 75. Ibid., pp. 127-128; and K. S. Moskalenko, Na <u>iugo-zapadnom</u> napravlenii. (Moscow: Nauka, 1969), pp. 15-23.
- 76. A. N. Lapchinsky, <u>Vozdushnaia armiia</u>. (Moscow: Gosvoenizdat, 1939), p. 144.
 - 77. Ibid., p. 72.
 - 78. Ibid., p. 176.

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- 79. Ibid., pp. 178-186.
- 80. Ibid., p. 185.
- 81. P. P. Ionov, "ispol'zovanie VVS v woine na zapade," <u>Voennais mysl</u>'. no. 10 (October 1940), pp. 34-40.
- 82. Eremenko, The Arduous Beginning. pp. 31-32; Anfilov, Proval blitskriga. p. 167; M. N. Kozhevnikov, Komandovanie i shtab VVS Sovetskoi Armii v Velikoi Otechestvennoi voine 1941-1945 gg. (Moscow: Voenizdat, 1977), pp. 32-33.
 - 83. Anfilov, Proval blitskriga. p. 131.
- 84. Von Hardesty, Red Phoenix: The Rise of Soviet Air Power, 1941-1945. (Washington, DC: Smithsonian Institution Press, 1982), pp. 20-30.
- 85. A.K. Sul'ianov et al, <u>Krasnoznamennyi Belorusskii voennyi okrug</u>. (Moscow: Voenizdat, 1983), pp. 85, 93.
- 86. Starunin, "Operativnoe vnezapnost', " <u>Voennaia mysl'</u>, no. 3, (March 1941), p. 27.
- 87. Ibid.. One feature of Colonel Starunin's work during this period should also be addressed in this context. Starunin was one of several Soviet authors who addressed the problem of fighting while encircled. Many armies, including the Wehrmacht and Red Army, embraced encirclement as the epitomy of an annihilation strategy and sought to bring about such operations, or "planned Cannae," as a means of destroying large portions of enemy forces. Soviet authors had studied battles encirclement as practiced during World War I and the Civil War and addressed the problem of extracating units from encirclements. However, in the wake of Khalkhin-Gol Starunin and others turned their attention to the actual conduct of battle under conditions of encirclement under the logical assumption that if Soviet forces could achieve encirclements by means of deep battle others would attempt to do the same to them. Starunin emphasized the use of encircled forces to deny an opponent important political and military objectives and to disrupt the enemy's operational pace. A few articles do not, of course, make a military doctrine or even guarantee that such concepts affected

the conduct of those desperate battles, which Soviet forces fought in the summer of 1941. The topic, however, is worthy of further investigation. See: A. I. Starunin. "Boi v Okrushenii." Voennaia mysl'. no. 10 (October 1940). pp.86-96.

- Starunin, "Boi v Okrushenii," Voennaia mysl', no. 10 (October 1940), pp.86-96.
 88. Ibid., pp. 28-29. In a recent article assessing trends in the form and content of the initial period of war from World War 1 to the present Lieutenant General A. I. Evseev confirmed this assessment of Soviet military theory on the eve of the Great Patriotic War. See: A.I. Evseev, "O nekotorykh tendentsiiakh v izmenenii soderzhaniia i kharaktera nachal'nogo perioda voiny," Voenno-istoricheskii zhurnal, no., 11 (November 1985), p. 20. The failures of military science in the 1930's to research the changing nature of the initial period of war thus serves as a justification for Soviet concern with that topic at the present time, including both nuclear and coventional operations.
- 89. M. Polushkin, "Operativnaia oborona v pervom periode Velikoi Otechestvennoi voiny," <u>Voenno-istoricheskii zhurnal</u>, no. 6 (June 1971), pp.14-22.

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